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Please find below and/or attached an Office communication concerning this application or proceeding.

		Anntication No.	Anglicant/c)			
~		Application No.	Applicant(s)			
	Office Action Summary	10/005,820	SCHNEIDER ET AL.			
`	Office Action Summary	Examiner	Art Unit			
	- The MAILING DATE of this communication app	Alexandra K Pechhold	3671 orrespondence address			
Period for						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status	,					
2a)☐ 3)☐	Responsive to communication(s) filed on <u>18 January 2005</u> . This action is FINAL . 2b) This action is non-final. Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Dispositio	on of Claims					
4) ☐ Claim(s) is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) ☐ Claim(s) is/are allowed. 6) ☒ Claim(s) 1-3,5-10,12-14,16-22,24-37 and 44-49 is/are rejected. 7) ☒ Claim(s) 38-43 is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or election requirement.						
Application	on Papers					
10) 🗌 1	The specification is objected to by the Examine The drawing(s) filed on is/are: a) acce Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the Ex	epted or b) objected to by the I drawing(s) be held in abeyance. See tion is required if the drawing(s) is obj	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).			
Priority u	nder 35 U.S.C. § 119					
a)[Acknowledgment is made of a claim for foreign All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the priority documents application from the International Bureau ee the attached detailed Office action for a list	s have been received. s have been received in Applicati rity documents have been receive u (PCT Rule 17.2(a)).	on No ed in this National Stage			
2) Notice 3) Inform	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Di 5) Notice of Informal F 6) Other:				

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 33-37 and 44-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Uotila (US 5,310,277).

Regarding claims 33, 36, and 44, Uotila discloses a barrier comprising:

- a receiving means (claim 33) or means for receiving and retaining the
 moving body (claims 36 and 44), seen as net (1) in Figs. 1, 4, and 5
- anchoring means (claim 33) or means for anchoring the receiving and retaining means (claim 36), seen as anchors (3) in Figs. 1 and 4,
- and means for decelerating the moving body in a controlled manner comprising at least one flexible, energy absorbing strap connected intermediate the receiving means and the anchoring means seen as brakes (4) in Figs. 1 and 4, capable of receiving forces exerted longitudinally along the length thereof, the brakes (4) being described by Uotila as discardable fabric brakes formed of one or several ribbons which have been woven or stitched together over a certain length, so that ribbons are forced to be torn apart when pulled (Col 2, lines 40-65).

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Inherently, the deceleration will be controlled to limit the deceleration thereof to below a predefined maximum deceleration level, since the moving body encounters the effects of the receiving means, anchoring means, and means for decelerating the moving body. Also, the tensile strength of the stitches must be less than that of the strap, since Uotila states that the ribbons which are stitched together over a certain length are forced to be torn apart (Col 4, lines 40-51).

Regarding claims 34 and 35, inherently the stitches in the brake members of Uotila will be ripped apart sequentially (Col 2, lines 40-65) due to the nature of the tearing action. And likewise, the stitches extending longitudinally along adjacent lengths of strap, since Uotila states that two ribbons have been woven or stitched together over a certain length (Col 4, lines 43-45).

Regarding claim 37, inherently the load capacity of the brake members of Uotila is the sum of the energy absorbing stroke of each stitch (Col 4, lines 43-45).

Regarding claim 45, Uotila discloses that the brake member may for instance be composed in that two ribbons have been woven or stitched together over a certain length (Col 4, lines 42-45), which would resulting in adjacent pairs of loops being interconnected by intermediate portions of the strap. Pulling on the draw members will produce in the brake member a uniform braking force opposing the pull so that the ribbons are forced to be torn apart (Col 4, lines 46-49).

Regarding claim 46, the brakes (4) are located between the net and anchor, and connected to the anchor as shown in Figs. 1 and 4.

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Regarding claim 47, the brakes (4) have a plurality of loops formed therein (Col 2, lines 40-51) and is connected to the net as shown in Fig. 1.

Regarding claim 48, the brake (4) is connected between the anchor and net.

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1-3, 5-10, 12-14, 16-22, 24-32, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uotila (US 5,310,277) in view of Terio (US 4,780,020).

Regarding claims 1, 6, and 10, Uotila discloses barrier capable of being installed alongside a roadway for protecting occupants of vehicles that collide with the barrier, comprising:

- a net (or means for receiving and retaining the moving body), seen as net
 (1) in Figs. 1, 4, and 5
- anchors (or means for anchoring the receiving and retaining means), seen
 as anchors (3) in Figs. 1 and 4, and
- a flexible strip arranged to secure the net to the anchors (or means for decelerating the moving body in a controlled manner), seen as brakes (4,

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5) in Figs. 1 and 4-7, which are described by Uotila as discardable fabric brakes formed of one or several ribbons which have been woven or stitched together over a certain length, so that ribbons are forced to be torn apart when pulled (Col 2, lines 40-65).

Uotila fails to disclose a first sacrificial panel (as recited in applicant's claims 1, 10, and 22), and a second sacrificial panel (as recited in applicant's claim 6), the first and second panels sandwiching the net therebetween (as recited in applicant's claim 22). Terio teaches a vehicle barrier comprised of I-beam posts with cable therebetween to stop a high-speed vehicle, and uses panels (40) for aesthetic purposes and to hide the functioning components of the barrier from view to protect from weather and scrutiny by potential terrorist (Col 5, lines 1-5). The panel(s) (40) of Terio are capable of extending alongside the roadway and have means for holding up the net in a vertical position, since the panels must somehow be fixed to the net and thereby inherently are a means for holding up the net. Two such panels would be employed between each pair of I-beams, one in front of the cables, on in back, between the cables and webs (2, 3), respectively (Col 5, lines 5-8). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the barrier of Uotila to include first and second sacrificial panels sandwiching the net therebetween as taught by Terio, since Terio states in column 5, lines 1-8 that the panels would provide aesthetic benefits and hide the functioning components of the barrier from view to protect the from weather and scrutiny by potential terrorist, and two such panels would

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be employed, one in front of the cables, on in back; furthermore, a smooth surface is merely an aesthetic feature which does not affect the effect or purpose of the panel.

Regarding claim 2, Uotila discloses that the brake members are formed of two ribs that have been woven or stitched together over a certain length, and they usually have two ends, on which draw members have been formed. Pulling on the draw members will cause the ribbons to be forced to be torn apart (Col 2, lines 40-51). Therefore, since the stitching breaks first, tearing apart the ribbons, the tensile strength of the stitching must be less than the tensile strength of the ribbons.

Regarding claim 3, Uotila discloses that the ribbons forming the fabric brakes have been woven or stitched together over a certain length (Col 2, lines 40-51), therefore the stitched and/or woven portions serving as the fasteners.

Regarding claim 5, the combination of Uotila and Terio fails to disclose a smooth surface on one side. Inherently, the physical structure of the panel (40) of Terio is capable of deflecting vehicles that collide only tangentially with the barrier, most likely where the vehicle is traveling at a relatively slow speed. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the barrier of Uotila to include the panel of Terio wherein the panel has a smooth surface on one side thereon, since a smooth surface is merely an aesthetic feature which does not affect the function of the panel.

Regarding claim 7, Uotila fails to disclose a plurality of barriers placed end-to-end alongside a roadway. But Uotila notes that "[I]t is obvious that any number of nets, such as may be considered necessary, can be placed one after the other" (Col 3, lines 35-

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37). The nets are designed for greatest possible cover for use in stopping any passenger car that is in motion on the road (Col 4, lines 22-25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the staggered nets in Fig. 9 of Uotila so there are a plurality of barriers placed end-to-end, since Uotila states in column 3, lines 35-37 that it is obvious that any number of nets, such as may be considered necessary, can be placed one after the other, and in column 4, lines 22-25 that the nets are designed for greatest possible cover for use in stopping any passenger car that is in motion on the road.

Regarding claims 8, 9, 12, and 13, Uotila discloses both a non-constant level of deceleration as well as a substantially constant level of deceleration in the action of the braking members (4, 5). Uotila notes that the first brake members are open, meaning that in conclusion of their operation the first brake members altogether cease to operate, and release their grip. The second brake members become locked in conclusion of their retarding effect, whereby the braking force increases to great height in the end (Col 2, lines 52-61). Therefore, it appears the first breaking members provide a substantially constant level of deceleration, and the second breaking members provide a non-constant level of deceleration since the braking force increases to great height in the end.

Regarding claims 14, 17, and 21, Uotila discloses a device for impeding motion of a land vehicle comprising:

a first barrier, seen as net (1¹) in Fig. 9

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a second barrier, seen as net (1²) in Fig. 9, positioned alongside the first
 net, the first row being staggered from the second row (Col 3, lines 21-25)

- a plurality of anchors, seen as anchors (3) in Figs. 1 and 4
- each barrier comprising a net, seen as nets (1¹) and (1²) in Fig. 9, and one or more flexible strips arranged to secure the net to the anchors, seen as brakes (4, 5) in Figs. 1 and 4-7, which are described by Uotila as discardable fabric brakes formed of one or several ribbons which have been woven or stitched together over a certain length, so that ribbons are forced to be torn apart when pulled (Col 2, lines 40-65).

Uotila fails to disclose a first sacrificial panel, which includes a smooth surface on one side (as recited in applicant's claim 16) and a second sacrificial panel, the first and second panels sandwiching the net therebetween (as recited in applicant's claim 17). Terio teaches a vehicle barrier comprised of I-beam posts with cable therebetween to stop a high speed vehicle (see abstract). The barrier employs panels (40), which would not only make aesthetically pleasing but would hide the functioning components of the barrier from view to protect the from weather and scrutiny by potential terrorist (Col 5, lines 1-5). Two such panels would be employed between each pair of I-beams, one in front of the cables, on in back, between the cables and webs (2, 3), respectively (Col 5, lines 5-8). The panel(s) (40) of Terio are capable of extending alongside the roadway and have means for holding up the net in a vertical position, since the panels must somehow be fixed to the net and thereby inherently are a means for holding up the net. It would have been obvious to one having ordinary skill in the art at the time the

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invention was made to modify the barrier of Uotila to include first and second sacrificial panels sandwiching the net therebetween as taught by Terio, since Terio states in column 5, lines 1-8 that the panels would not only make the gate aesthetically pleasing but would hide the functioning components of the barrier from view to protect the from weather and scrutiny by potential terrorist, and two such panels would be employed, one in front of the cables, on in back.

Uotila also fails to disclose a first row of barriers and second row of barriers positioned end-to-end (as recited in applicant's claim 14), with each barrier having a male portion and corresponding female portion of a mated joint (as recited in applicant's claim 21). Yet Uotila notes that it is obvious that any number of nets, such as may be considered necessary, can be placed one after the other (Col 3, lines 35-37). The nets are designed for greatest possible cover for use in stopping any passenger car that is in motion on the road (Col 4, lines 22-25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the staggered nets in Fig. 9 of Uotila so there is a row of first and second barriers positioned end-to-end, and each barrier having corresponding male and female portions of a mated joint, since Uotila states in column 3, lines 35-37 that it is obvious that any number of nets, such as may be considered necessary, can be placed one after the other, and in column 4, lines 22-25 that the nets are designed for greatest possible cover for use in stopping any passenger car that is in motion on the road. So therefore if you have multiple side-byside cars approaching the net, a row of barriers would be the logical solution in order to satisfy Uotila's desire for the greatest possible cover for use in stopping any passenger

car that is in motion on the road, and clearly the barriers would have to be joined by some sort of mated joint.

Regarding claim 16, the combination of Uotila and Terio fails to disclose a smooth surface on one side. Inherently, the physical structure of the panel (40) of Terio is capable of deflecting vehicles that collide only tangentially with the barrier, most likely where the vehicle is traveling at a relatively slow speed. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the barrier of Uotila to include the panel of Terio wherein the panel has a smooth surface on one side thereon, since a smooth surface is merely an aesthetic feature which does not affect the function of the panel.

Regarding claims 18 and 19, Uotila discloses both a non-constant level of deceleration as well as a substantially constant level of deceleration in the action of the braking members (4, 5). Uotila notes that the first brake members are open, meaning that in conclusion of their operation the first brake members altogether cease to operate, and release their grip. The second brake members become locked in conclusion of their retarding effect, whereby the braking force increases to great height in the end (Col 2, lines 52-61). Therefore, it appears the first breaking members provide a substantially constant level of deceleration, and the second breaking members provide a non-constant level of deceleration since the braking force increases to great height in the end.

Regarding claim 20, Uotila illustrates a plurality of support members mounted alongside the barriers, seen as posts (6) in Figs. 1 and 4.

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Regarding claim 22,, Uotila discloses a method of decelerating a vehicle moving along a roadway (see Col 3, lines 39 and 41-42) comprising:

- supporting a net, seen as net (1) in Figs. 1, 4, and 5,
- receiving the moving vehicle in the net (Col 1, lines 65-66 and Col 3, lines 41-42),
- deploying a plurality of energy absorbing straps attached to the net, seen
 as brakes (4, 5) in Figs. 1 and 4-7, which are described by Uotila as
 discardable fabric brakes formed of one or several ribbons which have
 been woven or stitched together over a certain length, so that ribbons are
 forced to be torn apart when pulled (Col 2, lines 40-65).
- decelerating the moving vehicle using these straps (Col 1, lines 58-66),
- limiting the deceleration of the moving vehicle to a level below a
 predefined maximum deceleration level safe for occupants of the vehicle,
 which inherently will occur since the resiliency and structural integrity of
 Uotila's structure will naturally provide a level of deceleration.

Uotila fails to disclose supporting the net with a first sacrificial panel capable of deflecting moving vehicles colliding tangentially therewith, and breaking away the first panel. Terio teaches a vehicle barrier comprised of I-beam posts with cable therebetween to stop a high speed vehicle (see abstract). The barrier employs panels (40), which would not only make the gate more pleasing to look at but would hide the functioning components of the barrier from view to protect the from weather and scrutiny by potential terrorist (Col 5, lines 1-5). It would have been obvious to one having

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ordinary skill in the art at the time the invention was made to modify the method of Uotila to include a first sacrificial panel capable of deflecting moving vehicles colliding tangentially therewith and the step of breaking away the first panel, as taught by Terio, since Terio states in column 5, lines 1-8 that the panels would not only make the gate more pleasing to look at but would hide the functioning components of the barrier from view to protect the from weather and scrutiny by potential terrorist, and such a panel is capable of deflecting moving vehicles colliding tangentially therewith (such as a vehicle traveling at a very slow speed), and inherently with enough speed, the panel would be broken away.

Regarding claim 24, Terio discloses first and second panels sandwiching the net therebetween; two such panels would be employed between each pair of I-beams, one in front of the cables, on in back, between the cables and webs (2, 3), respectively (Col 5, lines 5-8).

Regarding claims 25 and 26, Uotila fails to disclose anchoring a first row of nets end-to-end alongside a roadway and a second row of nets end-to-end alongside the first row (claim 25), wherein the nets in the first row are staggered relative to the nets in the second row (claim 26). Uotila does state that it is obvious that any number of nets, such as may be considered necessary, can be placed one after the other (Col 3, lines 35-37), the nets designed for greatest possible cover for use in stopping any passenger car that is in motion on the road (Col 4, lines 22-25). Uotila discloses the benefits of a staggered configuration, stating that offsetting nets relative to each other ensures advantageous seizing of the vehicle (Col 3, lines 21-36). It would have been obvious to

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one having ordinary skill in the art at the time the invention was made to modify the staggered nets in Fig. 9 of Uotila to include anchoring a first row of nets end-to-end alongside a roadway and a second row of nets end-to-end alongside the first row, wherein the nets in the first row are staggered relative to the nets in the second row, since Uotila states in column 3, lines 22-37 that it is obvious that any number of nets, such as may be considered necessary, can be placed one after the other, offset relative to each other to ensure advantageous seizing of the vehicle, and Uotila states in column 4, lines 22-25 that the nets are designed for greatest possible cover for use in stopping any passenger car that is in motion on the road.

Regarding claims 27 and 28, Uotila discloses both a non-constant level of deceleration as well as a substantially constant level of deceleration in the action of the braking members (4, 5). Uotila notes that the first brake members are open, meaning that in conclusion of their operation the first brake members altogether cease to operate, and release their grip. The second brake members become locked in conclusion of their retarding effect, whereby the braking force increases to great height in the end (Col 2, lines 52-61). Therefore, it appears the first breaking members provide a substantially constant level of deceleration, and the second breaking members provide a non-constant level of deceleration since the braking force increases to great height in the end.

Regarding claim 29-32, the combination of Uotila and Terio fails to disclose panels made of a thin layer of epoxy, concrete, or plywood, or combinations thereof.

Terio fails to specify the material of panels (40). It would have been obvious to one

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having ordinary skill in the art at the time the invention was made to modify the apparatus of Uotila having the panels of Terio so that the panels are made of a thin layer of epoxy, concrete, or plywood, or combinations thereof, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claim 49, Uotila discloses the limitations of the claimed invention as discussed with respect to claim 1 above. Uotila fails to disclose a first sacrificial panel with a smooth surface having means for deflecting vehicles which collide only tangentially with the panel. Terio teaches a vehicle barrier comprised of l-beam posts with cable therebetween to stop a high-speed vehicle, and uses panels (40) for aesthetic purposes and to hide the functioning components of the barrier from view to protect from weather and scrutiny by potential terrorist (Col 5, lines 1-5). The panel (40) of Terio are capable of extending alongside the roadway and have means for holding up the net in a vertical position, since the panels must somehow be fixed to the net and thereby inherently are a means for holding up the net. Inherently, the physical structure of the panel (40) of Terio is capable of deflecting vehicles that collide only tangentially with the barrier, most likely where the vehicle is traveling at a relatively slow speed. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the barrier of Uotila to include a first sacrificial panel having a smooth surface and means for deflecting vehicles which collide only tangentially with the panel, as taught by Terio, since Terio states in column 5, lines 1-8 that the panel

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would provide aesthetic benefits and hide the functioning components of the barrier from view to protect the from weather and scrutiny by potential terrorist, and furthermore, a smooth surface is merely an aesthetic feature which does not affect the effect or purpose of the panel.

Allowable Subject Matter

5. Claims 38-43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed 8/16/04 have been reconsidered but they are not persuasive. The Examiner is withdrawing the finality of the previous office action and therefore making this action non-final. Accordingly, applicant's after-final amendment filed 1/18/05 has not been entered in light of the Examiner now issuing a non-final rejection after reconsideration of the prior art and applicant's claims.

Specifically addressing the arguments, the applicant argues that Uotila and Terio combination does not meet the recitation of "deceleration-limiting barrier" or "barrier for limiting deceleration". Inherently, through the action of a vehicle impacting the barrier of Uotila with the panel of Terio, the deceleration of the vehicle will be limited by the physical restraint of the net and panel.

Applicant has amended claims 1 and 10 to add that the panel has "means for holding" up the net in a vertical position. Then the applicant refers to page 10, lines 19-21 of the Specification which provides minimal support for what exactly what structure comprises this "means". And turning to the panel of Terio, which is somehow attached to the net barrier, one of ordinary skill in the art can infer that the panel is acting as a means for holding up the net in a vertical position. For example, even if the net were to move, it would be confined on one side by the physical presence of the vertical panel against it, thereby holding up the net.

Applicant also argues that the combination does not meet the limitation of "for protecting occupants of vehicles that collide with the barrier". The combination only has to be *capable* of performing this function, and clearly the combination is capable of protecting occupants of vehicles, which depends heavily on the environment, structural integrity, vehicle speed, etc., but by all means, the combination is capable of providing this function.

With respect to claims 5 and 16, inherently the physical structure of the panel (40) of Terio on the device of Uotila is capable of deflecting vehicles that collide only tangentially with the barrier, most likely where the vehicle is traveling at a relatively slow speed. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the barrier of Uotila to include the panel of Terio wherein the panel has a smooth surface on one side thereon, since a smooth surface is merely an aesthetic feature which does not affect the function of the panel.

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Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexandra Pechhold whose telephone number is (703) 305-0870. The examiner can normally be reached on Mon-Thurs. from 8:00am to 5:30pm and alternating Fridays from 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached on (703)308-3870. The fax phone number for this Group is (703) 305-3597.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.

Supervisory Patent Examiner

AKP 2/7/05